NOTICE

All drawings located at the end of the document.

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FINAL
ENVIRONMENTAL RESTORATION
RFCA STANDARD OPERATING PROTOCOL
FOR ROUTINE SOIL REMEDIATION
FY03 NOTIFICATION #03-12
IHSS GROUP 800-1

September 2003

1/16

CEX-165-01

FINAL

ENVIRONMENTAL RESTORATION
RFCA STANDARD OPERATING PROTOCOL
FOR ROUTINE SOIL REMEDIATION
FY03 NOTIFICATION #03-12
IHSS GROUP 800-1

Approval received from the Colorado Department of Public Health and Environment

( )

Approval letter contained in the Administrative Record

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ACRONYMS

AL	action level
ALARA	as low as reasonably achievable
COC	contaminant of concern
cy	cubic yard
D&D	Decontamination and Decommissioning
DOE	Department of Energy
ER	Environmental Restoration
ER RSOP	Environmental Restoration RFCA Standard Operating Protocol
FY	Fiscal Year
IA	Industrial Area
IASAP	Industrial Area Sampling and Analysis Plan
IHSS	Individual Hazardous Substance Site
nCi/g	nanocuries per gram
NPWL	New Process Waste Lines
OPWL	Original Process Waste Lines
PAC	Potential Area of Concern
PCB	polychlorinated biphenyl
PCOC	potential contaminant of concern
pCi/g	picocuries per gram
POC	Point of Compliance
POE	Point of Evaluation
RCRA	Resource Conservation and Recovery Act
RFCA	Rocky Flats Cleanup Agreement
RFETS	Rocky Flats Environmental Technology Site
RSOP	RFCA Standard Operating Protocol
SSRS	Subsurface Soil Risk Screen
UBC	Under Building Contamination
VOC	volatile organic compound
WRW	Wildlife Refuge Worker

1.0 INTRODUCTION

This Environmental Restoration (ER) Rocky Flats Cleanup Agreement (RFCA) Standard Operating Protocol (RSOP) for Routine Soil Remediation (ER RSOP) (DOE 2002a) Fiscal Year (FY) 03 Notification includes the notification to remediate Individual Hazardous Substance Sites (IHSSs), Potential Areas of Concern (PACs), and Under Building Contamination (UBC) Sites at the Rocky Flats Environmental Technology Site (RFETS) Industrial Area (IA) during FY04. The purpose of this Notification is to invoke the ER RSOP for IHSS Group 800-1. Activities specified in the ER RSOP are not reiterated here, however, deviations from the ER RSOP are included where appropriate.

Soil with contaminant concentrations greater than the RFCA Action Levels (ALs), or as indicated by the Subsurface Soil Risk Screen (SSRS), and associated debris will be removed in accordance with RFCA (DOE et al 2003) and the ER RSOP (DOE 2002a).

The IHSS Group is shown on Figure 1, and the proposed remediation sites covered under ER RSOP Notification #03-12 are listed in Table 1.

Table 1
Potential Remediation Areas for IHSS Group 800-1

IHSS Group	IHSS/PAC/UBC Site	PCOCs	Media	Estimated Remediation Volume
800-1	UBC 865, Materials Process Building	Radionuclides, Metals, VOCs	Concrete and subsurface soil	25 cy (1600 tons)
800-1	PAC 800-1204, Building 866 Spill	Radionuclides, Metals, VOCs	Concrete and subsurface soil	5 cy
800-1	PAC 800-1210, Transformers 865-1 and 865-2	Radionuclides , PCBs	Concrete and subsurface soil	5 cy
800-1	PAC 800-1212, Building 866 Sump Spill	Radionuclides, Metals, VOCs	Concrete and subsurface soil	5 cy
800-1	IHSS 000-121, Original Process Waste Lines, including Tank 23	Radionuclides, Metals, VOCs	Piping and subsurface soil	5 cy

VOCs – volatile organic compounds
PCBs – polychlorinated biphenyls
cy – cubic yards

2.0 IHSS GROUP 800-1

IHSS Group 800-1 includes UBC 865, Materials Process Building; PAC 800-1204, Building 866 Spill; PAC 800-1210, Transformers 865-1 and 865-2; PAC 800-1212, Building 866 Sump Spill; and IHSS 000-121 OPWL Tank 23. The PAC and UBC sites are shown on Figure 2.

2.1 Potential Contaminants of Concern

Potential contaminants of concern (PCOCs) at IHSS Group 800-1 are listed in Table 1. The PCOCs at IHSS Group 800-1 were determined based on process knowledge and data collected during previous studies (DOE 1992, DOE 1993, DOE 1996, DOE 2000a, and DOE 2001a).

2.2 Project Conditions

The following conditions are present within the IHSS Group 800-1 area:

- UBC 865, Materials Process Building, currently consists of the Building 865 foundation slab and below-grade equipment pits and sumps. Building 865 was demolished to its main foundation slab during August 25 and 26, 2003. The slab is contaminated with depleted uranium (DOE 2001b). Prior to building demolition, the slab was sprayed with Instacote™, and during demolition, gouges and openings in the slab were sprayed with fixative. Process waste drains penetrating the foundation were filled to grade with grout prior to building decontamination and decommissioning (D&D). Pipe conduit openings in the building slab were plugged and grouted at the foundation level. Original Process Waste Lines (OPWL), foundation drains, and other utilities are present under the slab (Figure 2). OPWL Tank 23 was previously removed (Verbal communication, Cameron Freiboth, August 25, 2003).

- PAC 800-1204, Building 866 Spill, and PAC 800-1212, Building 866 Sump Spill, consist of Building 866, which was constructed to house process waste collection tanks. Process waste was released to the environment over the life of the facility during tank-filling operations. The waste tanks, the secondary containment system, and the concrete sump pit are still present. The tanks were emptied and are no longer subject to RCRA regulation (Verbal communication, Steve Nesta, August 25, 2003). OPWL and New Process Waste Lines (NPWL) are associated with the building (Figure 2).

- PAC 800-1210, Transformer 865-1 and 865-2, consists of a concrete transformer pad located on the northwestern side of Building 865. Transformers on the pad may have leaked in the past. In 1987, the transformers were retrofilled and relocated several feet to the north and placed on a new concrete pad with berms. The old pad was partially removed when the new pad was installed.

2.3 RFCA Subsurface Soil Risk Screen Evaluation

The SSRS is performed when non-radionuclides and uranium are present in the soil between 6 inches and 3 feet below ground surface, and when americium and plutonium are present between 3 feet and 6 feet below ground surface. Current site conditions are evaluated to determine if remediation is required. The SSRS will be conducted again after the accelerated action and related characterization are completed. The accelerated

actions taken, characterization results, and a revised SSRS will be documented in the IHSS Group 800-1 Closeout Report.

Screen 1 – Are contaminant of concern (COC) concentrations below Table 3 soil action levels for the Wildlife Refuge Worker?

Existing soil data, presented in IASAP Addendum #IA-03-01 (DOE 2002b), indicate that contaminant concentrations do not exceed RFCA Wildlife Refuge Worker (WRW) ALs. However, additional characterization will be conducted after building components are removed to determine if RFCA WRW ALs are exceeded.

Screen 2 – Is there a potential for subsurface soil to become surface soil (landslide and erosion areas identified on Figure 1)?

IHSS Group 800-1 is not located in an area subject to erosion and landslides in accordance with Figure 1 of RFCA (DOE et al 2003).

Screen 3 – Does subsurface soil contamination for radionuclides exceed criteria defined in Section 5.3 and Attachment 14?

Existing soil data indicate that contaminant concentrations do not exceed criteria defined in RFCA Section 5.3 and Attachment 14 (DOE et al 2003). However, additional characterization will be conducted in accordance with Attachment 14 and IASAP Addendum #IA-03-01 after building components are removed to determine if criteria are exceeded.

Screen 4 – Is there an environmental pathway and sufficient quantity of COCs that would cause an exceedance of the Surface Water Standards?

Existing soil data indicate that there is not sufficient contamination to cause an exceedance of surface water standards. However, the potential to exceed water quality standards will be re-evaluated after the accelerated action and related characterization are completed.

Contaminant migration via erosion and groundwater are the two possible pathways whereby surface water could become contaminated from IHSS Group 800-1. Run-off from IHSS Group 800-1 flows through Gauging Station GS28 (DOE 2002c). Most of the flow going through GS28 comes from IHSS 800-3. The nearest RFCA Surface Water Point of Evaluation (POE) is GS10, and exceedances of water quality standards have been detected at this monitoring station. However, GS10 receives water from a large part of the IA, and surface water quality at GS10 can not be attributable to any single IHSS Group. The potential for erosion as a pathway will be re-evaluated based on the final characterization data.

Screen 5 – Are COC concentrations below the Table 3 Soil Action Levels for Ecological Receptors?

Existing soil data indicate that contaminant concentrations do not exceed the RFCA Ecological Receptor ALs. However, additional characterization will be conducted after building components are removed to determine if the ALs are exceeded.

2.4 Remediation Plan

This RSOP Notification remediation plan for IHSS Group 800-1 includes the following objectives:

- Remove rock fill within sumps and dispose at an appropriate facility based on waste characterization results.

- Remove 100% of the Building 865 slab, the below-grade pits and sumps under the slab, and the Building 866 slab. Remove any remaining slabs associated with the support buildings (e.g., Buildings 863, 867 and 868) within 3 feet of the existing grade. Also remove the old and new transformer pads. Removal of the slabs and sumps/pits will be conducted in accordance with the RSOP for Facility Disposition (DOE 2000b).

- Dispose the Building 865 slab and associated pits and sumps as low level radioactive and beryllium waste. Other concrete will be recycled in accordance with the RSOP for Recycling Concrete (DOE 1999) or disposed at an appropriate facility based on waste characterization results.

- Remove OPWL and NPWL within 3 feet of the existing grade in accordance with the RSOP for Facility Disposition (DOE 2000b). Soil with contaminant concentrations greater than RFCA soil WRW ALs for plutonium-239/240 and americium-241 by any leaks from OPWL within 3 feet of the ground surface will be removed to a depth of 3 feet in accordance with RFCA Attachment 14 (DOE et al 2003). To minimize the risk of mobilizing and transporting contaminants into subsurface soil, flushing of the OPWL lines is not anticipated or required.

- Remove the foundation drains from under the UBC and PACs, the storm drains located just west of PAC 800-1204, and the sanitary sewer lines located northeast of UBC 865 to 3 feet of existing grade. Remaining foundation and storm drains will be disrupted to prevent their operation and the associated collection and movement of groundwater from this site. Remaining sanitary sewer lines will be checked for possible internal contamination, and results will be evaluated in consultation with the regulatory agencies.

- Remove soil with non-radionuclide or uranium contaminant concentrations greater than the RFCA WRW ALs to a depth of 6 inches. If soil contamination greater than the ALs extends below 6 inches in depth, perform the SSRS to evaluate the potential risk of exposure and the need for further accelerated action.

- Remove soil with plutonium-239/240 greater than the RFCA WRW AL to a depth of 3 feet, or to less than 50 pCi/g, whichever comes first. If concentrations are greater than 3 nanocuries per gram (nCi/g) between 3 and 6 feet, characterize and remediate in accordance with RFCA Attachment 5 (DOE et al 2003). If plutonium-239/240 is present below 6 feet, conduct a SSRS.

- Consult with regulatory agencies if contaminant concentrations are greater than the proposed ecological ALs but lower than the WRW ALs.

- If contaminated soil is removed, collect confirmation soil samples in accordance with the Industrial Area Sampling and Analysis Plan (IASAP) (DOE 2001a).

It is anticipated that after remediation there may be areas with concentrations of radionuclides, metals, and organics greater than the background means plus two standard deviations or the method detection/reporting limits, but below RFCA ALs.

2.5 Stewardship Evaluation

Based on the PCOCs (Table 1 and Section 2.1) and the ER RSOP (DOE 2002a), it is anticipated that all contamination above RFCA ALs will be remediated. Figure 2 shows the potential remediation areas (PAC and UBC sites).

Because the full extent of excavation and remediation is not known at this time, an additional stewardship evaluation will be conducted during remediation using the consultative process and will be documented in the IHSS Group 800-1 closeout report. A new map of residual contamination will be generated after remediation. Removed and remaining building components and utilities will be documented. Decontamination and decommissioning activities will be documented in a separate closeout report. The following sections present the stewardship evaluation.

2.5.1 Proximity to Other Contaminant Sources

IHSS Group 800-1 is in the RFETS IA and is located close to other contaminant sources. IHSS Group 800-6, which includes UBC 889, is located west of IHSS 800-1; IHSS Group 800-3, which includes UBC 883, is located southwest of IHSS Group 800-1; and IHSS Group 800-4, which includes UBC 886, is located east of IHSS Group 800-1.

2.5.2 Surface Water Protection

Surface water protection includes the following considerations:

Is there a pathway to surface water from potential erosion to streams or drainages?

There is a pathway to surface water from IHSS Group 800-1. The general drainage is to the northeast, and surface runoff is conveyed to South Walnut Creek via GS28 (a D&D performance monitoring station), GS10 (a surface water POE), and GS08 (a surface water Point of Compliance [POC]) (DOE 2002c). Flows from GS10 are conveyed to Pond B-4 and discharge to South Walnut Creek at GS08.

Do characterization data indicate there are contaminants in surface soil?

Existing soil data, presented in IASAP Addendum #IA-03-01 (DOE 2002b), indicate that contaminant concentrations do not exceed RFCA WRW ALs. However, additional characterization will be conducted after building components are removed to determine if RFCA WRW ALs are exceeded.

Do monitoring results from Points of Evaluation (POEs) or Points of Compliance (POCs) indicate there are surface water impacts from the area under consideration?

The nearest RFCA POE is GS10, and exceedances of water quality standards have been detected at this monitoring station. However, GS10 receives water from a large part of the IA, and surface water quality at GS10 can not be attributable to any single IHSS Group.

Is the IHSS Group in an area with high erosion potential, based on the 100-Year Average Erosion Map?

IHSS Group 800-1 is not located in an area subject to erosion in accordance with Figure 1 of RFCA (DOE et al 2003).

2.5.3 Monitoring

Monitoring includes the following considerations:

Do monitoring results from POEs or POCs indicate there are groundwater impacts from the area under consideration?

Groundwater around IHSS Group 800-1 is monitored at the following D&D groundwater monitoring wells: 86501, 86601 and 86701. Wells 40999 and P317989 are used to monitor both IHSS Groups 800-1 and 800-4. Monitoring results (DOE 2002d) are summarized below by well.

- Well 86501 had uranium-233/234, uranium-235 and uranium-238 concentrations that were above both RFCA Tier II groundwater ALs and background means plus two standard deviations.
- Well 86601 had uranium-233/234 and uranium-238 concentrations that were above RFCA Tier II groundwater ALs but below background means plus two standard deviations.
- Well 86701 had trichloroethene, uranium-233/234, uranium-235 and uranium-238 concentrations that were above RFCA Tier II groundwater ALs. Some uranium isotope concentrations were above background means plus two standard deviations.
- Well 40999 had uranium-233/234 and uranium-238 concentrations that were above RFCA Tier II groundwater ALs but below background means plus two standard deviations.
- Well P317989 had uranium-233/234, uranium-235 and uranium-238 concentrations that were above both RFCA Tier II groundwater ALs and background means plus two standard deviations.

High uranium levels in this area were investigated using inductively coupled plasma and mass spectroscopy methods to provide isotopic ratios from which a decision can be made whether the uranium is natural background or a contaminant from this IHSS Group (DOE 2000c, 2001c and 2002e). Wells upgradient were evaluated and found to have ratios in the natural range. Downgradient alluvial wells have not been evaluated.

Can the impact be traced to a specific IHSS Group?

Contaminant concentrations in Wells 86501, 86601 and 86701 can be traced to IHSS Group 800-1. Contaminant concentrations in Wells 40999 and P317989 can be traced to IHSS Groups 800-1 and 800-4.

Are additional monitoring stations needed?

Not applicable at this time. The need for and placement of monitoring stations will be re-evaluated in the *Long-Term Stewardship Plan.*

Can existing monitoring locations be deleted if additional remediation is conducted?

Not applicable. Existing wells monitor contamination from areas within and outside IHSS Group 800-1.

2.5.4 Stewardship Actions and Recommendations

The current stewardship actions and recommendations for IHSS Group 800-1 are as follows:

- Use Best Management Practices to reduce erosion into surface water drainage.
- Implement near-term institutional controls until final closure and stewardship decisions are implemented, including the following:
  - Fencing and signs to restrict access; and
  - Soil excavations controlled through the Site Soil Disturbance Permit process.
- Implement long-term stewardship actions, including the following:
  - Prohibitions on construction of buildings in the IA;
  - Restrictions on excavations or other soil disturbance; and
  - Prohibitions on groundwater pumping in the area of IHSS Group 800-1.

These recommendations may change based on in-process remediation activities and other future RFETS remediation decisions.

2.6 Accelerated Action Remediation Goals

ER RSOP remedial action objectives include the following:

1. Provide a remedy consistent with the RFETS goal of protection of human health and the environment;
2. Provide a remedy that minimizes the need for long-term maintenance and institutional or engineering controls; and
3. Minimize the spread of contaminants during implementation of accelerated actions.

2.7 Treatment

Not applicable.

2.8 Project-Specific Monitoring

High-volume air samplers may be used at the remediation area consistent with work controls to determine airborne radioactivity concentrations. Approximate locations of air samplers are shown on Figure 2.

2.9 Resource Conservation and Recovery Act (RCRA) Units and Intended Waste Disposition

Not applicable.

2.10 Administrative Record Documents

DOE, 1992, Historical Release Reports for the Rocky Flats Plant, Golden, Colorado, June.

DOE, 1993, Historical Release Report, Fifth Quarter Update, Rocky Flats Environmental Technology Site, Golden, Colorado, October.

DOE, 1996, Annual Update, Historical Release Report, Rocky Flats Environmental Technology Site, Golden, Colorado, September.

DOE, 1999, RFCA Standard Operating Protocol for Recycling Concrete, Rocky Flats Environmental Technology Site, Golden, Colorado, September.

DOE, 2000, RFCA Standard Operating Protocol for Facility Disposition, Rocky Flats Environmental Technology Site, Golden, Colorado, August.

DOE, 2000, Industrial Area Data Summary Report, Rocky Flats Environmental Technology Site, Golden, Colorado, September.

DOE, 2000, 1999 Annual RFCA Groundwater Monitoring Report for Rocky Flats Environmental Technology Site, Golden, Colorado, November.

DOE, 2001, Industrial Area Sampling and Analysis Plan, Rocky Flats Environmental Technology Site, Golden, Colorado, June.

DOE, 2001, Reconnaissance Level Characterization Report, 865 Cluster Closure Project, Rocky Flats Environmental Technology Site, Golden, Colorado, September.

DOE, 2001, 2000 Annual RFCA Groundwater Monitoring Report for Rocky Flats Environmental Technology Site, Golden, Colorado, November.

DOE, 2002, Environmental Restoration RFCA Standard Operating Protocol for Routine Soil Remediation, Rocky Flats Environmental Technology Site, Golden, Colorado, January.

DOE, 2002, Industrial Area Sampling and Analysis Plan Addendum #IA-03-01 for IHSS Groups 300-3, 300-4, 400-8, 700-4, 800-1, and 900-3, Rocky Flats Environmental Technology Site, Golden, Colorado, September.

DOE, 2002, Automated Surface Water Monitoring Report, Water Years 1997 – 2000, Rocky Flats Environmental Technology Site, Golden, Colorado, September.

DOE, 2002, Second Quarter RFCA Groundwater Monitoring Report for Calendar Year 2002, Rocky Flats Environmental Technology Site, Golden, Colorado, November.

DOE, 2002, 2001 Annual RFCA Groundwater Monitoring Report for Rocky Flats Environmental Technology Site, Golden, Colorado, November.

DOE, CDPHE, EPA, 2003, Modifications to the Rocky Flats Cleanup Agreement Attachment, U.S. Department of Energy, Colorado Department of Public Health and Environment, and U.S. Environmental Protection Agency, Rocky Flats Environmental Technology Site, Golden, Colorado, June.

2.11 Projected Schedule

Remediation of IHSS Group 800-1 is expected to begin in first quarter of FY 04.

3.0 PUBLIC PARTICIPATION

ER RSOP Notification #03-12 activities were discussed at the October 2003 ER/D&D Status meeting. A PDF version of this notification was provided to the local governments. This notification is available at the Rocky Flats Reading Rooms and on the EDDIE website at www.rfets.gov.

4.0 REFERENCES

DOE, 1992-2002, Historical Release Reports for the Rocky Flats Plant, Golden, Colorado.

DOE, 1993, Historical Release Report, Fifth Quarter Update, Rocky Flats Environmental Technology Site, Golden, Colorado, October.

DOE, 1996, Annual Update, Historical Release Report, Rocky Flats Environmental Technology Site, Golden, Colorado, September.

DOE, 1999, RFCA Standard Operating Protocol for Recycling Concrete, Rocky Flats Environmental Technology Site, Golden, Colorado, September.

DOE, 2000a, Industrial Area Data Summary Report, Rocky Flats Environmental Technology Site, Golden, Colorado, September.

DOE, 2000b, RFCA Standard Operating Protocol for Facility Disposition, Rocky Flats Environmental Technology Site, Golden, Colorado, August.

DOE, 2000c, 1999 Annual RFCA Groundwater Monitoring Report for Rocky Flats Environmental Technology Site, Golden, Colorado, November.

DOE, 2001a, Industrial Area Sampling and Analysis Plan, Rocky Flats Environmental Technology Site, Golden, Colorado, June.

DOE, 2001b, Reconnaissance Level Characterization Report, 865 Cluster Closure Project, Rocky Flats Environmental Technology Site, Golden, Colorado, September.

DOE, 2001c, 2000 Annual RFCA Groundwater Monitoring Report for Rocky Flats Environmental Technology Site, Golden, Colorado, November.

DOE, 2002a, Environmental Restoration RFCA Standard Operating Protocol for Routine Soil Remediation, Rocky Flats Environmental Technology Site, Golden, Colorado, January.

DOE, 2002b, Industrial Area Sampling and Analysis Plan Addendum #IA-03-01 for IHSS Groups 300-3, 300-4, 400-8, 700-4, 800-1, and 900-3, Rocky Flats Environmental Technology Site, Golden, Colorado, September.

DOE, 2002c, Automated Surface Water Monitoring Report, Water Years 1997 – 2000, Rocky Flats Environmental Technology Site, Golden, Colorado, September.

DOE, 2002d, Second Quarter RFCA Groundwater Monitoring Report for Calendar Year 2002, Rocky Flats Environmental Technology Site, Golden, Colorado, November.

DOE, 2002e, 2001 Annual RFCA Groundwater Monitoring Report for Rocky Flats Environmental Technology Site, Golden, Colorado, November.

DOE, CDPHE, EPA, 2003, Modifications to the Rocky Flats Cleanup Agreement Attachment, U.S. Department of Energy, Colorado Department of Public Health and Environment, and U.S. Environmental Protection Agency, Rocky Flats Environmental Technology Site, Golden, Colorado, June.

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Figure 1

IHSS Group 800-1 Location Map

(As of August 26, 2003)

E 2,079,000 E 2,080,000 E 2,082,000 E 2,084,000 E 2,086,000 E 2,086,780

N 752,324 N 752,000 N 750,000 N 748,000 N 746,970 N 746,500

EXPLANATION

IHSS Groupings

800-1

Standard Map Features

- Buildings and other structures
- Demolished buildings and Other Structures
- Fences and other barriers
- *Topographic Contour (20-Foot)*
- Rocky Flats Environmental Technology Site boundary
- Paved roads
- Dirt roads

DATA SOURCE BASE FEATURES:
Buildings, fences, hydrography, roads and other structures from 1994 aerial fly-over data captured by EG&G RSL, Las Vegas. Digitized from the orthophotographs. 1/95

Topographic contours were derived from digital elevation model (DEM) data by Morrison Knudsen (MK) using ESRI Arc TIN and LATTICE to process the DEM data to create 5-foot contours. The DEM data was captured by the Remote Sensing Lab, Las Vegas, NV, 1994 Aerial Flyover at ~ 10 meter resolution. DEM post-processing performed by MK, Winter 1997.

Scale = 1 : 7280
1 inch represents approximately 607 feet

250 0 500 1000ft

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

GIS Dept. 303-966-7707

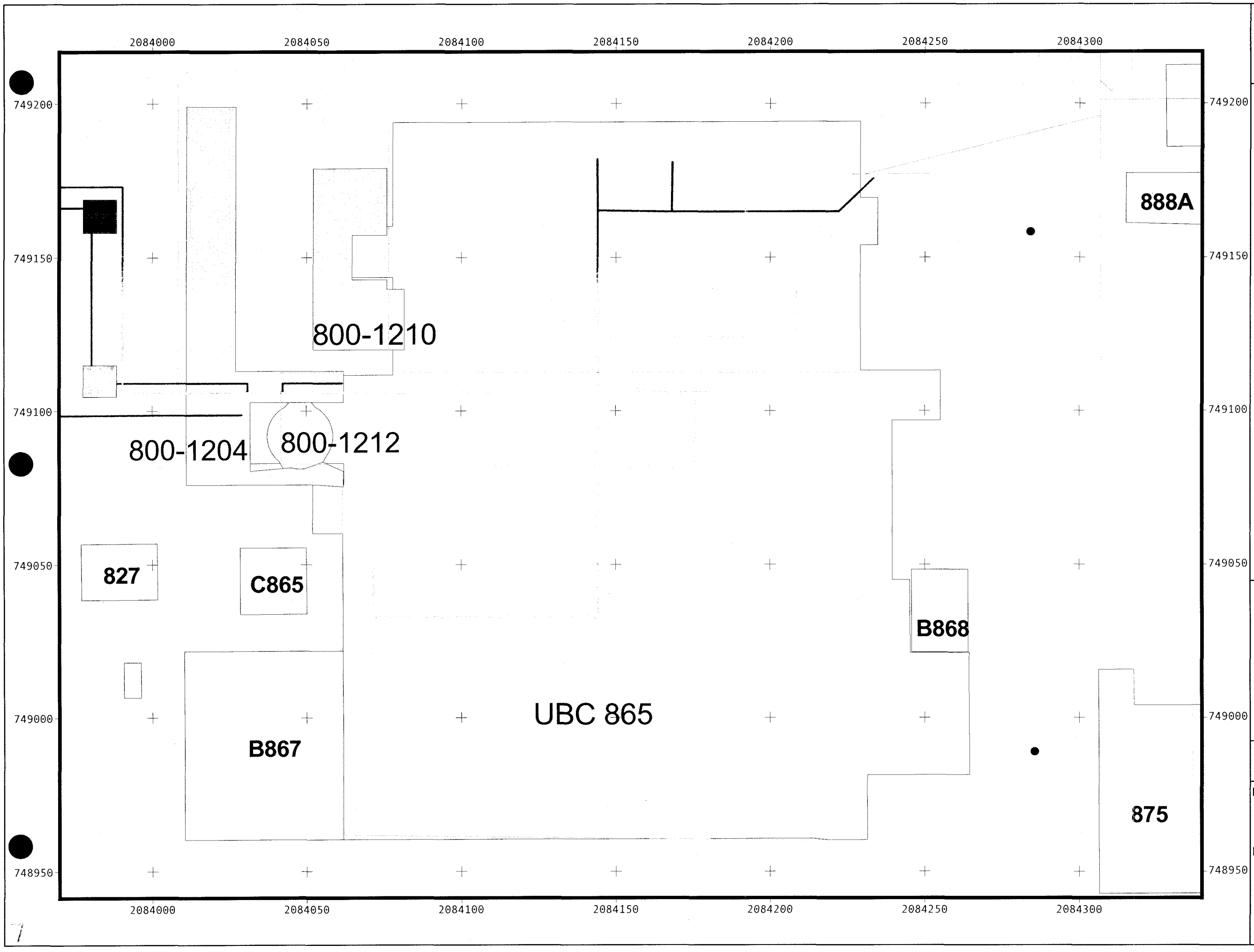
Prepared by: CH2MHILL

Prepared for: KAISER•HILL COMPANY

August 26, 2003

NT_Svr w:/projects/fy2003/03-0539/ias_rsop_800-1.aml

Figure 2
Potential Remediation Areas
IHSS Group 800-1



KEY

- UBC 865
- PAC 800-1210
- Valve vault
- OPWL
- NPWL
- Foundation drain
- Sewer line
- Paved area
- Storm drain
- Stream, ditch, or other drainage
- Dirt road
- Building
- Approximate location of air sampler

N
W E
S

10 0 10 20 30 40 Feet

Scale = 1:400

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: RADMS Remedial Action Decision Management System

Prepared for: Kaiser-Hill Company

File: w:\projects\2003\800-1\
800-1_existing data.apr

Date: 08/25/03